

TWO DIMENSIONAL PHASED ARRAYS
FOR VOLUMETRIC ULTRASONIC INSPECTION

ABSTRACT

[0053] The present disclosure provides for the application of a two-dimensional ultrasonic phased array (100), formed of a plurality of transducers (102) arranged in a rectilinear pattern, for material and volumetric component testing. The two-dimensional array enables electronic adjustment of the focal properties and size of the aperture in both the azimuthal and elevational directions such that uniform and/or specified sound field characteristics can be obtained at any or all locations in the component being tested.